Washington State Public Health Laboratory

Microbiology—PFGE Interpretation Report

Date: 1/15/2006

To:

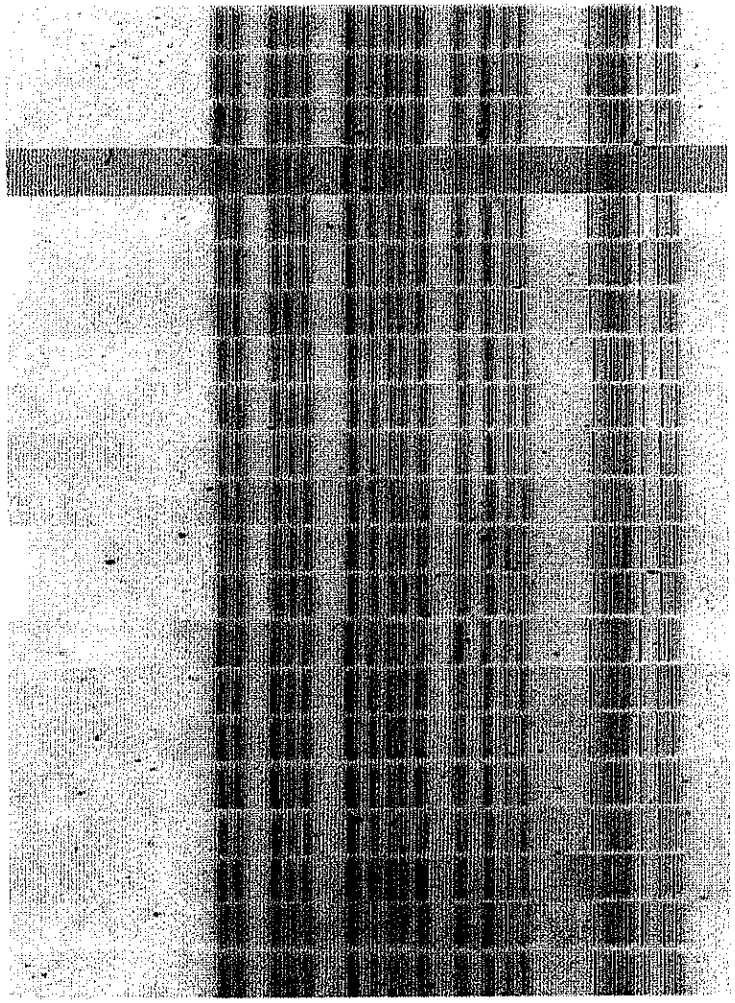
From: Kaye Eckmann, Microbiologist

RE: PFGE Molecular Subtyping Results

Isolates submitted to **Washington State Public Health PFGE Laboratory** were analyzed by Pulsed-Field Gel Electrophoresis (PFGE) DNA fingerprinting using standardized PulseNet methods.

Isolates analyzed by PFGE subtyping were each given a unique isolate number when accessioned. Individual DNA fingerprint patterns were produced for each isolate using the restriction enzyme **XbaI**

PFGE-XbaI



Lab #	Pattern	Pattern Date	Serotype	Source
9415	.EC081	2005-12-16	.E. Coli O157:H7	. ..Human
9416	.EC081	2005-12-16	.E. Coli O157:H7	. ..Human
9417	.EC081	2005-12-16	.E. Coli O157:H7	. ..Human
9422	.EC081	2005-12-20	.E. Coli O157:H7	. Human
9448	.EC081	2005-12-28	.E. Coli O157:H7	..Human
9449	.EC081	2005-12-28	.E. Coli O157:H7	..Human
9469	.EC081	2006-01-09	.E. Coli O157:H7	..Human
9432	.EC081	2005-12-22	.E. Coli O157:H7	. ..Environmental
9433	.EC081	2005-12-22	.E. Coli O157:H7	. ..Environmental
9434	.EC081	2005-12-22	.E. Coli O157:H7	. ..Animal
9435	.EC081	2005-12-22	.E. Coli O157:H7	. ..Animal
9450	.EC081	2005-12-28	.E. Coli O157:H7	. ..Environmental
9451	.EC081	2005-12-28	.E. Coli O157:H7	. ..Environmental
9470	.EC081	2006-01-09	.E. Coli O157:H7	. .Environmental
9471	.EC081	2006-01-09	.E. Coli O157:H7	. .Environmental
9472	.EC081	2006-01-09	.E. Coli O157:H7	. .Environmental
9473	.EC081	2006-01-09	.E. Coli O157:H7	. .Environmental
9474	.EC081	2006-01-09	.E. Coli O157:H7	. .Environmental
9475	.EC081	2006-01-09	.E. Coli O157:H7	. .Environmental
9510	.EC081	2006-01-14	.E. Coli O157:H7	.
9511	.EC081	2006-01-14	.E. Coli O157:H7	.

Positive Sample test chart – all sample isolates cross matched in duplicate with human illness cases from outbreak.		
WDOH PHL Lab#	Corresponding Lab Number	Sample Description
9432	WSDA 756-1	Raw milk product returned by shareholder
9433	WSDA 756-2	Raw milk product returned by shareholder
9434	WSDA 757-5	Milk sample collected during milking of Sorrell by Dee Creek 12-14-05
9435	WSDA 757-6	Milk sample collected during milking of Sorrell by Dee Creek 12-14-05
9450	WSDA 05F-765-1	Swab #2 – top side of rubber mat surface in milk area on 12-15-05
9451	WSDA 05F-765-3	Swab #2 – top side of rubber mat surface in milk area. collected 12-15-05
9470	WSU E11607	Swab #2 – holding pen mud-pack at entrance to milking area. collected 12-16-05
9471	WSU E11607	Swab #2 – holding pen mud-pack at entrance to milking area. collected 12-16-05
9472	WSU E11608	Swab #9 – top side of rubber mat in milking area. collected 12-16-05
9473	WSU 11608	Swab #9 – top side of rubber mat in milking area. collected 12-16-05
9474	WSU 11609	Swab #10 – mud on ground just inside the door to milking area. collected 12-16-05
9475	WSU 11609	Swab #10 – mud on ground just inside the door to milking area. collected 12-16-05
9510	FDA	Swab #1 – top side of rubber mat in milking area. collected 12-16-05
9511	FDA	Swab #1 – top side of rubber mat in milking area. collected 12-16-05

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General Interpretation Criteria:

Isolates that have been designated with the same PFGE pattern name as the outbreak pattern may be interpreted as indistinguishable from the outbreak strain. Isolates with different PFGE fingerprint patterns have been designated as "different" in the PFGE Pattern Interpretation column. Specifically by this work, isolates that have indistinguishable DNA fingerprint patterns are more likely to have originated from a common source; isolates that have different DNA fingerprint patterns are less likely to have originated from a common source.

Disclaimer:

The results of PFGE fingerprinting analysis should always be used in conjunction with clinical, microbiologic, and epidemiologic information. PFGE analysis is a population based assay and should not be used for individual patient diagnostic purposes. PFGE is an investigational tool and should be used for investigational purposes only. Epidemiological relatedness is considered to be the gold standard.

Reference: Swaminathan B, Barrett TJ, Hunter SB, Tauxe RV, the CDC PulseNet Task Force. PulseNet: The Molecular subtyping network for foodborne bacterial disease surveillance, United States. Emerg Infect Dis 2001;7:382-9 Website: www.cdc.gov/pulsenet

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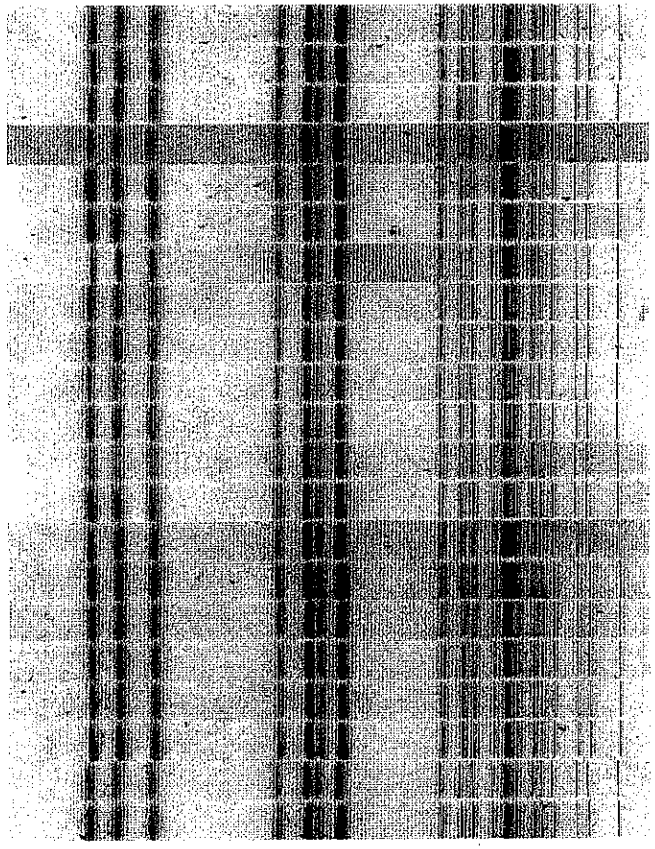
PFGE-BInI



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9422	..2005-12-20	..E. Coli O157:H7	ECL100
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